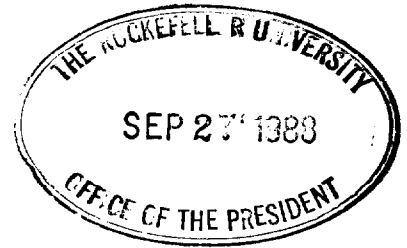


THE LEW EVANS FOUNDATION

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September 22, 1988

Dr. Joshua Lederberg
President, Rockefeller University
1230 York Avenue
New York, New York 10021

Dear Dr. Lederberg,

I am writing to you at the suggestion of Dr. Paul Coleman, with whom I recently had a discussion about one of the activities of the Lew Evans Foundation.

When I retired from NASA this past spring and became President of the Foundation I found that one of its objectives was to examine the possibility that research in space might contribute to our understanding of the processes of aging. The hypothesis was based on the similarity of some of the symptoms exhibited by astronauts (and cosmonauts) during flight and the symptoms which accompany aging, and by a limited number of space experiments at the cellular or molecular level which show changes - apparently caused by the near absence of gravity - also similar to changes which accompany aging.

Although my background as an aeronautical engineer seriously limits the depth to which I can pursue the question, I have become convinced, as a result of many conversations during the past 6 months, that very few people engaged in geriatric studies have seriously considered orbital space as an environment in which to carry out research, but once they begin to consider how the absence of gravity might affect the body at the cellular or membrane level they almost always become interested in pursuing the subject further.

I have discussed this with Dr. Frank Williams, Director of the NIH Institute on Aging, and Dr. Robert Butler of Mt. Sinai Hospital, and each has agreed that he, or a staff member, will participate in a brainstorming session with two or three people who are familiar with the bio-medical research which has been carried out in space during the past 30 years, to see if there seems to be sufficient linkage between these two fields to warrant a 3-day workshop of perhaps 25 people from a number of fields including geriatric research, physics, space bio-medicine, and endocrinology to see if the subject warrants the undertaking

of a limited research program and if so, what type of program it should be. The first, small meeting, is planned for November 7 at the NIH. The date will be set for the second after we see how the first goes.

I am writing to you for two reasons. The first is the suggestion of Dr. Coleman that it might interest you. If this is so I would be delighted to come to New York to discuss it and to seek your advice on how to move the idea forward. Or, if you plan to be in Washington within the next couple of months, we could, perhaps meet here. The second is more self serving. Although I have not discussed this subject extensively with Dr. Nicogossian, it seems apparent, from the conversations we have had, that he has little enthusiasm for it. Although I cannot be certain, I suspect that he is simply too preoccupied with astronaut well-being to have time to be interested in aging. The specific use of space research to support geriatric studies is not a NASA responsibility but if the program is to progress, NASA, and specifically Life Sciences, must become involved, and sooner or later I would like for some members of his advisory committee to be aware of some of the thinking behind this idea.

I realize you are very busy, but if you are interested in pursuing this further - or in being kept informed - I would be pleased to hear from you.

Very truly yours,

A handwritten signature in black ink, appearing to read "P.E. Culbertson", with a stylized flourish at the end.

P.E. Culbertson
President